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ISSUES OF OUTPATIENT RHEUMATOLOGY CARE FOR CHILDREN IN ST. PETERSBURG (USING THE EXAMPLE OF ST. MARY MAGDALENE CHILDREN'S CITY HOSPITAL № 2)

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Abstract. *Introduction.* The effectiveness of providing specialized rheumatological care to the pediatric population directly depends on the completeness and quality of data on the prevalence of rheumatic diseases in children, the analysis of which takes into account not only the number of patients with rheumatic diseases, but also the peculiarities of their course and routing ("portrait" and "pathway" of the patient). *Purposes and tasks.* Describe the "pathway" and "portrait" of all patients who have applied for an outpatient appointment with a rheumatologist for 5 months. *Materials and methods.* During outpatient appointments, the rheumatologist recorded the age and gender, the patient's complaints, the diagnosis of the referral, the previously prescribed therapy, for primary patients it was additionally clarified which specialist referred them for consultation, and whether they had a full primary diagnosis. Based on the results of the admission, the established diagnosis and prescribed therapy were recorded, the frequency of fundamental differences in diagnoses and cases of inadequate therapy, the frequency of referrals of patients to emergency and planned hospitalization in the rheumatology department were recorded. *Results.* The "pathway" and "portrait" of all patients who applied for an outpatient appointment with a rheumatologist for 5 months are presented. Of the 335 receptions conducted, there were 204 (60.9%) initial applications, 131 (39.1%) repeated ones. A fundamental discrepancy between the diagnosis of the referral and the diagnosis established during the consultation was recorded in 53 cases (15.82%). In 15 cases (4.48%), there was a clear inadequacy of the therapy carried out before the consultation with a rheumatologist. Among the 204 patients examined by a rheumatologist initially, only 168 (82.35%) had the minimum necessary laboratory tests, joint radiography in 119 (58.33%), ultrasound examination of joints in 84 (41.18%). *Conclusions.* It is necessary to increase the provision of outpatient rheumatologists and increase the level of training in the diagnosis and treatment of rheumatic diseases among specialists who perform the functions of rheumatologists in their absence.

Keywords*: rheumatic diseases, children, outpatient admission*

ВОПРОСЫ ОКАЗАНИЯ АМБУЛАТОРНОЙ РЕВМАТОЛОГИЧЕСКОЙ ПОМОЩИ ДЕТЯМ В САНКТ-ПЕТЕРБУРГЕ (НА ПРИМЕРЕ ДЕТСКОЙ ГОРОДСКОЙ БОЛЬНИЦЫ № 2 СВЯТОЙ МАРИИ МАГДАЛИНЫ)

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Резюме. *Введение.* Эффективность оказания специализированной ревматологической помощи детскому населению напрямую зависит от полноты и качества данных о распространенности ревматических заболеваний у детей, при анализе которой учитываются не только численность пациентов с ревматическими заболеваниями, но и особенности их течения и маршрутизации («портрет» и «путь» пациента). *Цели и задачи.* Описать «путь» и «портрет» всех пациентов, обратившихся на амбулаторный прием врача-ревматолога в течение 5 месяцев. *Материалы и методы.* В ходе амбулаторных приемов врачом-ревматологом фиксировался возраст и пол, жалобы пациента, диагноз направления, назначенная ранее терапия, для первичных пациентов дополнительно уточнялось, какой специалист направил их на консультацию, и была ли им проведена первичная диагностика в полном объеме. По результатам приема записывали установленный диагноз и назначенную терапию, фиксировали частоту принципиальных расхождений диагнозов и случаев неадекватной терапии, частоту направлений пациентов на экстренную и плановую госпитализацию в ревматологическое отделение. *Результаты*. Представлен «путь» и «портрет» всех пациентов, обратившихся на амбулаторный прием врача-ревматолога в течение 5 месяцев. Из 335 проведенных приемов было 204 (60,9%) первичных обращения и 131 (39,1%) повторное. Принципиальное расхождение диагноза направления и диагноза, установленного в ходе консультации, было зафиксировано в 53 случаях (15,82%). В 15 случаях (4,48%) была отмечена явная неадекватность проводимой до консультации ревматолога терапии. Среди 204 пациентов, осмотренных ревматологом первично, только у 168 (82,35%) были выполнены минимально необходимые лабораторные исследования, рентгенография суставов — у 119 (58,33%), ультразвуковое исследование суставов — у 84 (41,18%). *Выводы.* Необходимо повышение обеспеченности амбулаторного звена врачами-ревматологами и повышение уровня подготовки в вопросах диагностики и лечения ревматических заболеваний у специалистов, выполняющих функции врачей-ревматологов в их отсутствие.

Ключевые слова*: ревматические заболевания, дети, амбулаторный прием*

INTRODUCTION

At the beginning of the XXI century there was a clear tendency to increase the number of diagnosed rheumatic diseases in children in the Russian Federation, like all over the world [1, 2]. The effectiveness of providing specialized, high-tech, rheumatological care to children directly depends on the availability and quality of data on the prevalence of rheumatic diseases in children. Analysis of the obtained information should take into account the number of patients with rheumatic diseases, as well as peculiarities of the course of these diseases and patient routing ("portrait" and "path" of a patient, respectively) [2, 3]. The main problems faced by patients at the beginning of this "pathway" are an insufficient supply of rheumatologists in outpatient care and insufficient training in the diagnosis and treatment of rheumatic diseases among specialists who are forced to perform their functions (paediatricians, general practitioners, orthopaedic traumatologists, paediatric cardiologists and other outpatient specialists) [2, 4]. At the same time, our own experience in providing outpatient rheumatological care in the Russian Federation is published very rarely, both as an example of adult patients [5, 6] and children [7, 8]. Children's City Hospital (CCH) N 2 of St. Mary Magdalene is the only city hospital in St. Petersburg that has a rheumatology department in its structure, and its Consultative and Diagnostic Centre (CDC) has the largest number of paediatric rheumatologists (both staff units and individuals) [9, 10]. The analysis of the sample of patients referred to the outpatient rheumatologist of the CDC of Children's Hospital N 2 largely reflects the general situation with outpatient rheumatological care for children in St. Petersburg.

AIM

The aim of the research is to describe a "path" and 'portrait' of all patients who applied to an outpatient appointment to one of the rheumatologists of the CDC of CCH N 2 within 5 months.

MATERIALS AND METHODS

From 4 October 2023 to 6 March 2024, a rheumatologist working part-time at CDC CCH N 2 conducted 335 outpatient appointments for children aged 10 months to 18 years (median 10.1 years). During the appointments, the age and gender of

a patient were recorded, it was specified whether it was a primary or a repeat appointment (patients who came to see this rheumatologist for the first time but had previously consulted other rheumatologists were recorded separately). Patients who were referred for consultation were specified for primary patients (outpatient clinic doctors — paediatrician, orthopaedic traumatologist, paediatric surgeon, paediatric cardiologist, paediatrician of the reception department of the Children's Hospital N 2, specialist doctors of the CDC of the Children's Hospital N 2). Patient's complaints, referral diagnosis, previously prescribed therapy were recorded. In case of primary patients, it was additionally specified whether primary diagnostics (laboratory, ultrasound and radiological) had been carried out in full. According to the results of an appointment, there were recorded diagnoses and prescribed therapy, the frequency of fundamental discrepancies between the diagnoses established before and after the appointment, as well as the frequency of cases of inadequate previously prescribed therapy, and referrals for emergency and planned hospitalization in rheumatology departments. The information obtained was entered into an electronic database using Microsoft Office Excel 2016 software. Qualitative features were analyzed in the study and presented in the form of absolute numbers (n) and extensive indicators (%).

RESULTS

The distribution of patients classified by age and sex is presented in Table 1.

204 (60.9%) primary referrals and 131 (39.1%) repeat referrals were recorded out of 335 appointments in total. Among the primary patients, 54 (16.12% of the total number of patients) had ever been previously seen by other rheumatologists both at CCH N 2 and other medical institutions, 150 patients (44.78% of all admissions) were seen by a rheumatologist for the first time. Among them 50 patients (33.33%) were referred by paediatricians of polyclinics, 33 patients (22%) were referred by paediatricians of the reception department of CCH N 2, 32 patients (21.33%) were referred by orthopaedic traumatologists, 9 patients (6%) were referred for planned rheumatologist consultation after discharge from paediatric departments of CCH N 2, 6 patients (4%) were referred by ORLs of outpatient clinics, 4 patients (2.67%) were referred by surgeons of outpatient clinics, 3 patients (2%) were referred by cardiologists, gastroenterologists, allergologists, 2 patients (1.33%) were referred by infectious disease specialists and ophthalmologists, and 1 patient (0.67%) was referred by a nephrologist, dermatologist and neurologist.

Among 335 patients referred for outpatient rheumatological consultation, 142 children (42.39%) had joint pain without any objective symptoms of inflammation as their only complaint. Complaints of objective signs of arthritis (swelling of one or more joints, limited mobility in the joint, inability to support the leg, lameness, etc.) were noted in 91 patients (27.16%). No joint complaints were noted in 23 patients (6.87%), but there were various extra-articular complaints which were suspicious for the debut of rheumatic disease (13 patients had skin lesions, 5 patients had fever of unclear genesis, 3 patients had inflammatory eye diseases and 1 patient each had tics and Raynaud's phenomenon). 19 patients

Table 1. Distribution of patients by age and gender

Таблица 1. Распределение пациентов по возрасту и полу

Пациенты, n (%) / Patients, n (%)	Всего 335 (100%), из них 172 (51,34%) мужского пола (м.) / Total 335 (100%), of which 172 (51,34%) are male (m.)
Младенческого возраста (младше 1 года) / Infant age (under 1 year old)	1 (0,3%) м. (m.)
Раннего детского возраста (от 1 до 3 лет) / Early childhood (from 1 to 3 years old)	15 (4,48%), из них / of which 6 (40%) м. (m.)
Дошкольного возраста (от 3 до 7 лет) / Preschool age (from 3 to 7 years old)	67 (20%), из них / of which 41 (61,19%) м. (m.)
Младшего школьного возраста (от 7 до 12 лет) / Primary school age (from 7 to 12 years old)	129 (38,5%), из них / of which 73 (56,59%) м. (m.)
Подросткового возраста (от 12 до 18 лет) / Adolescents (from 12 to 18 years old)	123 (36,72%), из них / of which 51 (41,6%) м. (m.)

Table 2. The structure of diagnoses of referral and established diagnoses

Таблица 2. Структура диагнозов направления и установленных диагнозов

Диагнозы / Diagnoses	Диагнозы направления / Diagnoses of referral	Установленные диагнозы / Established diagnoses
M02/M13 — Артрит неуточненный, реактивный, постстрептококковый и другие постинфекционные артриты, в том числе транзиторный синовит тазобедренного сустава / Unspecified arthritis, reactive, poststreptococcal and other post-infectious arthritis arthritis, including transient synovitis of the hip joint	137 (40,9%), из них / of which 88 (64,23%) м. (m.)	115 (34,33%), из них / of which 82 (71,3%) м. (m.)
M25.5/M35.7 — Артралгии, синдром гипермобильности суставов / Arthralgia, joint hypermobility syndrome	87 (25,97%), из них / of which 39 (44,83%) м. (m.)	114 (34,03%), из них / of which 45 (39,47%) м. (m.)
M08 — Ювенильный идиопатический артрит / Juvenile idiopathic arthritis	55 (16,42%), из них / of which 16 (29,09%) м. (m.)	50 (14,93%), из них / of which 14 (28%) м. (m.)
A49.1/B95.5 — Неосложненная стрептококковая инфекция, носительство стрептококка / Uncomplicated streptococcal infection, carrier of streptococcus	24 (7,16%), из них / of which 10 (41,67%) м. (m.)	18 (5,37%), из них / of which 8 (44,44%) м. (m.)
Прочие	32 (9,55%), из них / of which 19 (59,37%) м. (m.)	38 (11,34%), из них / of which 23 (60,53%) м. (m.)

(5.67%) were referred for an outpatient consultation with a rheumatologist solely due to changes in blood tests. No clinical picture was present (17 of patients had an increase in antistreptolysin O, 1 patient — an increase in alkaline phosphatase and 1 patient — antinuclear factor).

60 patients (17.91%) did not have any complaints at the time of referral, but had a previously diagnosed musculoskeletal/connective tissue disease and were examined as part of a regular medical follow-up.

Table 2 shows a structure of the most frequent diagnoses of patients sent for rheumatology consultation as well as a structure of diagnoses established during the consultation. Other referrals include 4 patients (1.19%) with previously established orthopaedic diagnoses referred for rheumatology consultation before undergoing medical and social expert assessment (avascular necrosis of the femoral head, congenital hip dislocation, Perthes' disease, adolescent idiopathic scoliosis) as well as 4 patients (1.19%) with "erythema nodosum", 2 patients (0, 6%) with referral diagnoses of "dermatomyositis", "autoinflammatory disease" and "skin-restricted vasculitis unspecified", and 1 patient (0.3%) per "localized scleroderma", "idiopathic urticaria", "Raynaud's syndrome", "haemorrhagic vasculitis", "systemic vasculitis unspecified", "systemic lupus erythematosus", "arthritis associated with inflammatory bowel disease". In addition, 5 patients (1.49%) were referred with frankly non-specific diagnoses (superficial shin injury, heart rhythm disorder, vitiligo, allergic contact dermatitis, herpes virus infections), and 6 patients (1.79%) were referred with absurd diagnoses (M05/M06 — different variants of adult rheumatoid arthritis).

There was a fundamental discrepancy between the referral diagnosis and the diagnosis established during the consultation in 53 cases (15.82%).

Among diagnosed chronic rheumatic diseases, the vast majority were different variants of juvenile idiopathic arthritis (JIA) (50 patients). Their distribution by subtype is presented in Table 3.

Juvenile primary fibromyalgia was diagnosed in 5 patients (1.49%). 4 patients (1.19%) had unchanged previously established orthopaedic diagnoses (avascular necrosis of the femoral head, congenital hip dislocation, Perthes' disease, adolescent idiopathic scoliosis), 3 patients (0.9%) had diagnoses of "erythema nodosum" and "unspecified skin-limited vasculitis", 2 patients (0, 6%) had "autoinflammatory disease" and "Sjögren's syndrome", and 1 patient (0.3%) per "chronic recurrent multifocal osteomyelitis", "localized scleroderma", "idiopathic urticaria", "haemorrhagic vasculitis", "dermatomyositis", "Crohn's disease", "Raynaud's syndrome", "paediatric autoimmune neuropsychiatric disorder associated with infection caused by group A streptococcus". Osteoid osteoma of the femoral neck was also suspected in 1 patient (0.3%), which was subsequently excluded.

Table 3. The distribution of patients with an established diagnosis of juvenile idiopathic arthritis by subtypes of the disease

Таблица 3. Распределение пациентов с установленным диагнозом «ювенильный идиопатический артрит» по субтипам заболевания

Диагнозы / Diagnoses	Пациенты, n (%) / Patients, n (%)
Ювенильный идиопатический артрит (ЮИА), олигоартрит без поражения глаз / Oligoarticular juvenile idiopathic arthritis (JIA) without eye damage	20 (40%), из них / of which 6 (30%) м. (m.)
ЮИА, олигоартрит с поражением глаз / Oligoarticular JIA with eye damage	3 (6%), из них / of which 1 (33,33%) м. (m.)
ЮИА, полиартрит / Polyarticular JIA	3 (6%), из них / of which 0 м. (m.)
Энтезит-ассоциированный артрит / Enthesitis-related arthritis	13 (26%), из них / of which 4 (30,77%) м. (m.)
Псориатический артрит / Psoriatic arthritis	3 (6%), из них / of which 1 (33,33%) м. (m.)
Недифференцированный артрит / Undifferentiated arthritis	8 (16%), из них/ of which 2 (25%) м. (m.)

Таблица 4. Назначенная терапия

Table 4. Prescribed therapy

Назначенная терапия / Prescribed therapy	До консультации / Before the consultation	После консультации / After the consultation
НПВП местно / NSAIDs applied topically	37 (11,04%)	54 (16,12%)
НПВП внутрь / NSAIDs by mouth	117 (34,93%)	74 (22,09%)
Антибиотики / Antibiotics	44 (13,13%)	11 (3,28%)
SYSADOA	10 (2,99%)	38 (11,34%)
Метотрексат / Methotrexate	14 (4,18%)	14 (4,18%)
Азатиоприн / Azathioprine	1 (0,3%)	1 (0,3%)
Стероиды внутрь / Steroids by mouth	2 (0,6%)	2 (0,6%)
Стероиды внутримышечно / Intramuscularly steroids	4 (1,19%)	0
Стероиды внутрисуставно / Intra-articular steroids	6 (1,79%)	11 (3,28%)
Гиалуроновая кислота внутрисуставно / Intra-articular Hyaluronic acid	0	2 (0,6%)
Методы ФРМ / PRM methods	42 (12,54%)	95 (28,36%)
Без терапии / Without therapy	115 (34,33%)	126 (37,61%)

Note: NSAIDs — non-steroidal anti-inflammatory drugs; SYSADOA — Symptomatic Slow Acting Drugs for OsteoArthritis; PRM — physical and rehabilitation medicine.

Примечание: НПВП — нестероидные противовоспалительные препараты; SYSADOA — симптоматические препараты замедленного действия для лечения остеоартрита; ФРМ — физическая и реабилитационная медицина.

The remaining 10 children who consulted a rheumatologist (2.99%) were not diagnosed with any diseases.

The treatment received by patients before the rheumatologist's consultation and prescribed after the consultation is shown in Table 4.

In addition, 4 patients (1.19%) were already receiving various genetically engineered biological agents (GEBAs) by the time of consultation (2 with secukinumab and 1 per infliximab and etanercept), and were advised to continue their therapy with GEBAs further, while an additional 5 patients (1.49%) were advised to initiate it.

40 patients (11.94%) were referred for hospitalization in rheumatology department, out of which 38 children (95%) were referred for planned hospitalization, respectively 2 patients (5%) were referred for emergency hospitalization.

In 15 cases (4.48%), there was marked inadequacy of prior therapy.

1. A surgeon at a polyclinic correctly diagnosed JIA in an 8-year-old girl with long-term swelling of the knee joint, but no anti-inflammatory therapy was prescribed.
2. A 3-year-old girl with the debut of JIA with pronounced objective signs of arthritis was

treated by the orthopaedist of the polyclinic as arthralgia, and the patient received only common non-steroidal anti-inflammatory drugs (NSAIDs).

3. A 14-year-old girl with tics following a streptococcal infection was legitimately considered to have a paediatric autoimmune neuropsychiatric disorder associated with group A streptococcal infection by a outpatient clinic neurologist, but no antibiotic therapy was prescribed.
4. A paediatrician at a polyclinic diagnosed unspecified arthritis in a 10-month-old boy with swelling of the interphalangeal, knee and ankle joints and a history of psoriasis and psoriatic arthritis, but no anti-inflammatory therapy was prescribed before consultation with a rheumatologist.
5. A 7-year-old girl was referred by a paediatrician of a polyclinic with a diagnosis of erythema nodosum, but along with erythema nodosum, arthritis of the knee joint dominated the clinical picture; no NSAIDs were prescribed.
6. A 15-year-old girl with joint hypermobility syndrome was treated by a paediatrician for unspecified arthritis, and the patient received NSAIDs for a long time without effect.
7. A 10-year-old boy with streptococcal infection and arthralgias without objective signs of arthritis was treated for reactive arthritis by a paediatrician of the emergency room, and the patient received a course of NSAIDs without effect.
8. A 6-year-old boy with a rather severe onset of JIA, oligoarthritis requiring at least intra-articular steroid administration, was also diagnosed with reactive arthritis by a paediatrician of the admission department and received only NSAIDs with little or no effect.
9. A similar situation was noted in another girl of 8 years of age.
10. A 17-year-old boy with reactive arthritis who came to a rheumatologist for a follow-up appointment was initially treated for joint hypermobility syndrome, and accordingly, the patient did not receive the necessary anti-inflammatory therapy.
11. A 12-year-old girl with fibromyalgia was interpreted by a rheumatologist as JIA, and the patient received NSAIDs for a long time without any effect.

Table 5. Initial examination of patients by various specialists before referral to a rheumatologist

Таблица 5. Первичное обследование пациентов различными специалистами перед направлением к ревматологу

Специалист / Specialist	Всего пациентов / Total number of patients	Лабораторные исследования / Laboratory tests	Рентгенография / Radiography	Ультразвуковое исследование / Ultrasound examination	Расхождение диагнозов / Discrepancy of diagnoses	Неадекватность терапии / Inadequacy of therapy
Педиатр поликлиники / Pediatrician of the polyclinic	50 (24,51%)	39 (78%)	16 (32%)	12 (24%)	24 (48%)	2 (4%)
Педиатр приемного отделения / Pediatrician of the emergency department	33 (16,18%)	30 (90,91%)	32 (96,97%)	8 (24,24%)	4 (12,12%)	3 (9,09%)
Педиатр педиатрического отделения / Pediatrician of the pediatric department	9 (4,41%)	9 (100%)	7 (77,78%)	8 (88,89%)	2 (22,22%)	1 (11,11%)
Ортопед / Orthopedist	32 (15,69%)	21 (65,63%)	22 (68,75%)	16 (50%)	4 (12,5%)	1 (3,12%)
Ревматолог / Rheumatologist	54 (26,47%)	49 (90,74%)	40 (74,07%)	34 (62,96%)	7 (12,96%)	2 (3,7%)
Прочие / Others	26 (12,74%)	20 (76,92%)	2 (7,69%)	6 (23,07%)	8 (30,77%)	2 (7,69%)

12. A 10-year-old boy with widespread musculoskeletal pain, without objective signs of arthritis, was also prescribed long-term courses of NSAIDs by a rheumatologist.
13. A 12-year-old boy carrying streptococcal infection, without any complaints or objective findings on examination, was previously prescribed long-term antibiotic therapy by a rheumatologist.
14. A 15-year-old boy with a probable debut of chronic recurrent multifocal osteomyelitis was treated by a rheumatologist as arthralgia, and the patient was treated only with physical rehabilitation medicine.
15. A 2-year-old girl with JIA, oligoarthritis with high inflammatory activity, was not prescribed any additional (systemic or local injection) anti-inflammatory therapy by a rheumatologist, besides methotrexate therapy.

Among 204 patients referred to a rheumatologist for the first time, only 168 children (82.35%) had minimal laboratory tests performed, joint radiography — 119 (58.33%), joint ultrasound — 84 (41.18%). Table 5 shows the frequency of primary examination by various specialists before referral to a rheumatologist, as well as the frequency of discrepancies in diagnoses established before and after the rheumatologist's appointment and inadequate therapy by various specialists before the rheumatologist's consultation.

DISCUSSION

The structure of diagnoses and prescribed therapy almost completely coincides with the results obtained earlier based on on outpatient appointments of a rheumatologist from a St. Petersburg network of private medical centres over a period of two years [6].

Within 5 months, the majority of patients visited the rheumatologist of CDC of Children's Hospital No. 2 for the first time, most often they were referred by a paediatrician. The most frequent reason to consult a rheumatologist was joint pain without any objective symptoms of joint inflammation, while the most frequent referral diagnoses were different variants of arthritis, and the most frequent therapy was prescription of NSAIDs. A fundamental discrepancy between the referral diagnosis and the diagnosis established during the consultation, as well as the apparent inadequacy of the therapy carried out before the appointment with the rheumatologist were noted quite often. Minimally necessary laboratory tests, radiography and joint ultrasound before referral to a rheumatologist were disappointingly rare. In a publication conducted in 2021 [8], dedicated to an audit of outpatient appointments with a Moscow rheumatologist, similar results were obtained (the average age of patients was 10.4 years, 52% were boys, in 40% of cases patients were referred to a rheumatologist with suspicion of various arthritis variants, while in 57% of patients pain in one or more joints was the only complaint, preliminary laboratory and instrumental examination in accordance with modern clinical recommendations was performed only in 72% of cases). The authors note that the research revealed frequent non-compliance of outpatient doctors with the existing algorithms of examination and routing of patients. A significant proportion of patients had no objective grounds for consultation with a rheumatologist and did not receive a proper preliminary examination before consulting a specialist, which is also valid for the results of our research.

CONCLUSION

Due to the increased number of diagnosed rheumatic diseases in children, the workload of outpatient appointments of paediatric rheumatologists has significantly increased, which often leads to longer waiting times for consultations by patients in need. The situation is aggravated by a rather large percentage of non-core patients referred for rheumatology consultations (uncomplicated streptococcal infection is the most frequent, but not the only reason for unjustified referrals to rheumatologists). Moreover, referring physicians often overdiagnose (arthralgias without objective signs of joint inflammation are very rarely the only symptom of arthritis, and yet they are often interpreted in this way by paediatricians, orthopaedic traumatologists and other primary care physicians). In addition, a significant percentage of patients are referred for consultation without a minimal examination, as a result, at the initial appointment of a rheumatologist, such a patient receives referrals for tests that could have been successfully completed at the polyclinic. Patients are invited for a second appointment, which, on the one hand, additionally increases the workload of rheumatologist appointments, and on the other hand, increases the waiting time to receive appropriate specialized care. Thus, there are two possible ways out of this situation: to increase the availability

of rheumatologists in outpatient clinics and to improve the level of training in diagnosis, treatment and routing of patients with suspected rheumatic diseases among paediatricians, orthopaedic traumatologists and other specialists of polyclinics. It will reduce the proportion of referrals of non-core patients to the CDC and improve the quality of primary examination of referred patients, and, accordingly, the quality of treatment for rheumatic diseases. One of the ways to increase the availability of rheumatological care for children might be the creation of children's rheumatology offices in outpatient settings, as it is supposed to be, according to the Order N 441n dated 25 October 2012 'On Approval of the Procedure for Providing Medical Care to Children in the Profile of Rheumatology' (as amended on 21 February 2020).

ADDITIONAL INFORMATION

Author contribution. Thereby, all authors made a substantial contribution to the conception of the study, acquisition, analysis, interpretation of data for the work, drafting and revising the article, final approval of the version to be published and agree to be accountable for all aspects of the study.

Competing interests. The authors declare that they have no competing interests.

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Вклад авторов. Все авторы внесли существенный вклад в разработку концепции, проведение исследования и подготовку статьи, прочли и одобрили финальную версию перед публикацией.

Конфликт интересов. Авторы декларируют отсутствие явных и потенциальных конфликтов интересов, связанных с публикацией настоящей статьи.

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